

REMARKS

Two new claims have been presented depending from claims 22 and 23 reciting a Markush group of the (meth)acrylic monomer broadly indicated in claims 22 and 23 from which the new claims respectively depend. The Examiner is directed to the specification at page 48, lines 30 to 36 where support is found for the new claims. The claims before the Examiner for consideration thus are claims 1 to 6, 8 to 13, and 15 to 29.

The rejection of claims 1 to 3, 5, 6, 8 to 10, 12, 13, and 15 to 27 under 35 USC 103 as unpatentable over Morii et al. '607 is respectfully traversed. Various portions of the reference are cited allegedly to show the claimed subject matter. The Examiner kindly noted that U.S. 6,066,378 was the U.S. counterpart of Morii '607. The undersigned has relied upon the disclosure in the U.S. counterpart for an understanding of the Examiner's position.

Although the reference teaches a volume hologram laminate containing a substrate, first and second adhesive layers, and a volume hologram layer, applicants respectfully submit that there is no proper teaching or suggestion in the reference that placement of a tackifier in an adhesive layer or layers allows one to control the reproduced wavelength of the hologram recorded in the hologram

Serial No. 09/288,569

layer by shifting a tackifier substance between the layers. Although there is mention of rosin ester, terpene resin and phenolic resin as a material for forming an adhesive layer in the multilayered volume hologram structure of the reference (see, e.g., column 12, lines 10 to 14 of the '378 counterpart), there is no mention of the ability of a tackifier to achieve the shift specified in the claims. The Examiner is directed to the comments in the September 21, 2001 paper captioned ARGUMENT AND DOCUMENTATION IN REBUTTAL OF COMMENTS IN ADVISORY ACTION. An adhesive normally comprises a polymer binder; if one wants to control tackiness of the adhesive, a tackifier may be added thereto but an adhesive is not a tackifier. In addition, the working examples in the reference all seem to use the same adhesive agent (Nissetsu PE-118); see e.g. column 27, lines 45 to 48, column 28, lines 37 to 40, column 39, lines 14 and 15 and column 43, lines 31 to 34 and 38 and 39. The reference does not teach the invention as claimed.

Applicants moreover respectfully submit that the subject matter of, for example, claims 12, 15, 20, and 21 calling specifically for shifts to the short wavelength side or shifts to the long wavelength side are not taught or suggested in the

Serial No. 09/288,569

reference. And where does the reference show refractive index numbers as recited in claims 13 and 16?

It is also asserted in the Office Action that the subject matter of claims 22 to 27 (now claims 22 to 29) is unpatentable because "monomers are clearly known on the record to result in shifting based upon their size and level of curing"; see page 3, lines 11 and 12 of the Office Action. Applicants respectfully submit that the reference no way discloses, teaches, or suggests the specific materials and criteria of these claims. If the rejection is maintained, the Examiner is requested to indicate on the record where support is found in Morii et al. '607 (or '378) for these values or properties. The rejection should be withdrawn.

The rejection of claims 1 to 6, 8 to 13, and 15 to 27 under 35 USC 103 as unpatentable over Ueda et al. '598 and Smothers et al. '772 in view of Morii et al. '607 is respectfully traversed.

The tertiary reference has been discussed above. Ueda et al. '598 is said to show an adhesive NOA-61. Applicants pointed out in the paper filed September 21, 2001 that the product is a photocurable liquid adhesive, not a tackifier. The reference thus does not lead the artisan to what is claimed here.

Serial No. 09/288,569

Smothers et al. EP '772 does discuss a diffusion element. It is clear however that the reference specifically requires sequential treatment. A holographic film element is first exposed to coherent (laser) light to record a volume hologram within the film element. After such exposure, the film element is contacted with a diffusion element. Thus, one of ordinary skill in the art carrying out the Smothers et al. EP '772 invention would not form an article as claimed herein where such elements are already in place. The references collectively do not teach or suggest the claimed invention; the rejection should be withdrawn.

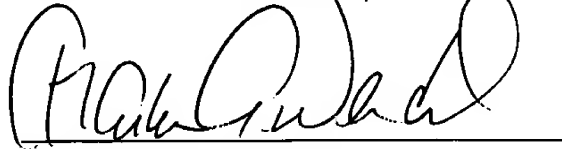
The rejection of claims 1 to 27 (assumed to be claims 1 to 6, 8 to 13, and 15 to 27) under 35 USC 103 as unpatentable over Ueda et al. '509 and Smothers et al. EP '772 in view of Morii et al. '607 further in view of Yamagishi et al. '684, Tarumi et al. '107 or Weber et al. '863 is also respectfully traversed. The citation of additional references showing that acrylic-based adhesive materials are known and can be used in holograms does not supply the disclosure necessary to provide a proper basis to deny patentability to the claims herein.

Serial No. 09/288,569

Reconsideration of the application is earnestly solicited.

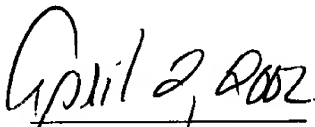
Respectfully submitted,

PARKHURST & WENDEL, L.L.P.

A handwritten signature in dark ink, appearing to read "Charles A. Wendel", written over a horizontal line.

Charles A. Wendel

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A handwritten date "April 2, 2002" in dark ink, written over a horizontal line.

Date

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Attorney Docket No.: DAIN:499

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